

ABSTRACT

A control system having a download function includes a first storage area for storing execution program data for executing a control function in a rewritable status, a second storage area for storing a download module containing fresh pieces of update target execution program data and module identifying information, a first control unit for receiving the download module encrypted by an encryption key generated from the same program data as the execution program data stored in the first storage element and from the module identifying information, and storing the received download module in the second storage element, and a second control unit for decrypting the download module by an encryption key generated from data in the execution program data in the first storage area and from data of the download module in the second storage area and replacing, when a storage start address, a data length and a check digit that are encrypted in the download module are decrypted into valid values in a plain text, the execution program data in the first storage area with the fresh execution program data decrypted.